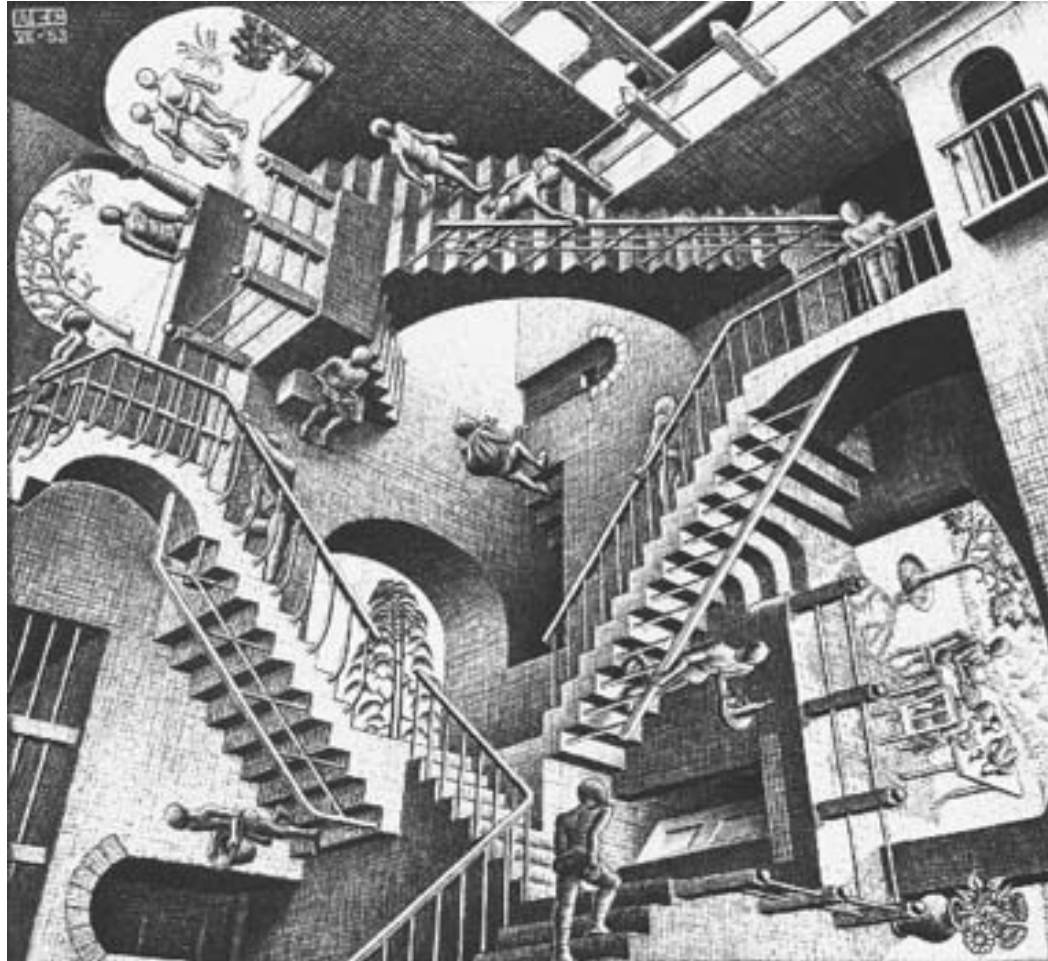


Enterprise Architecture and ITD

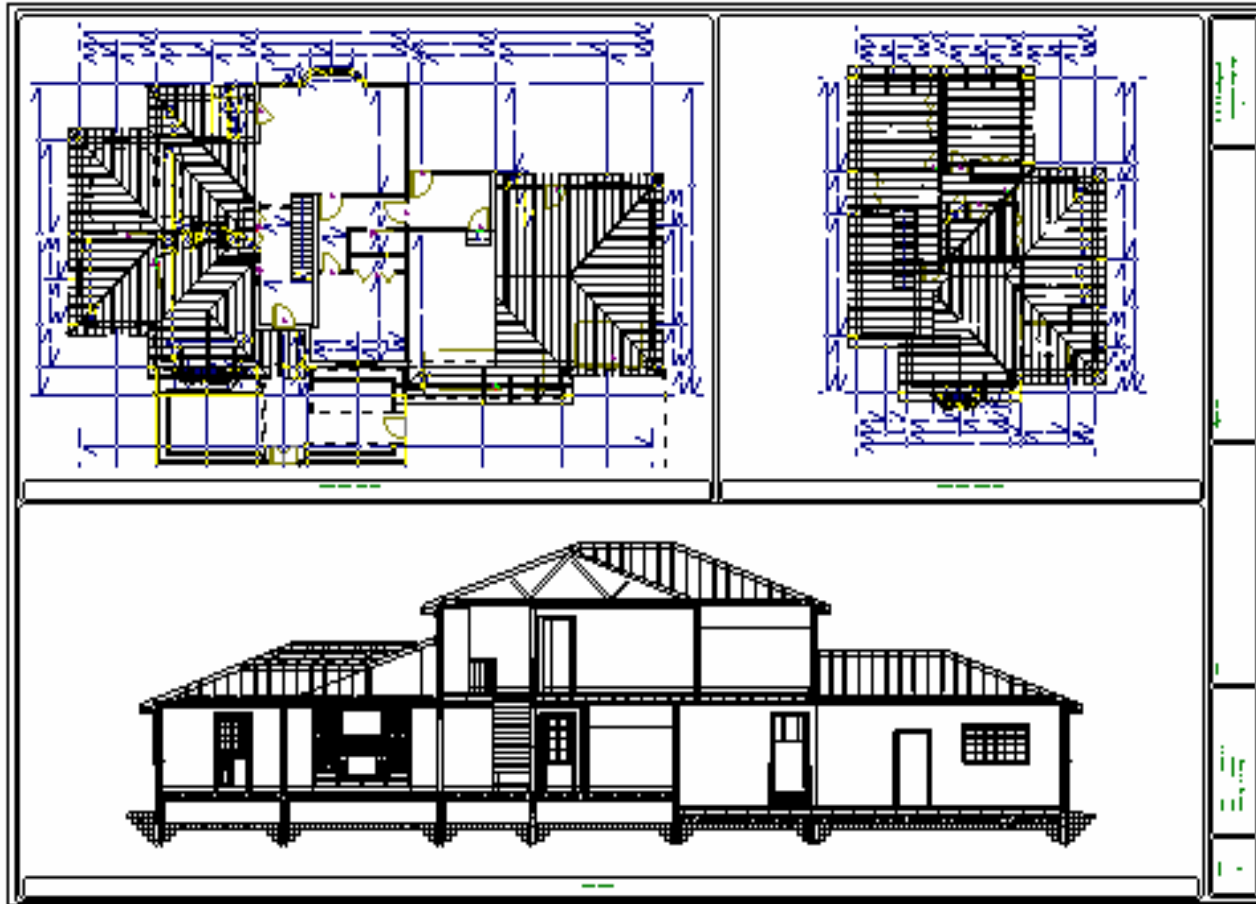
**ITD Staff Meeting
May 6, 2002**



The Winchester House

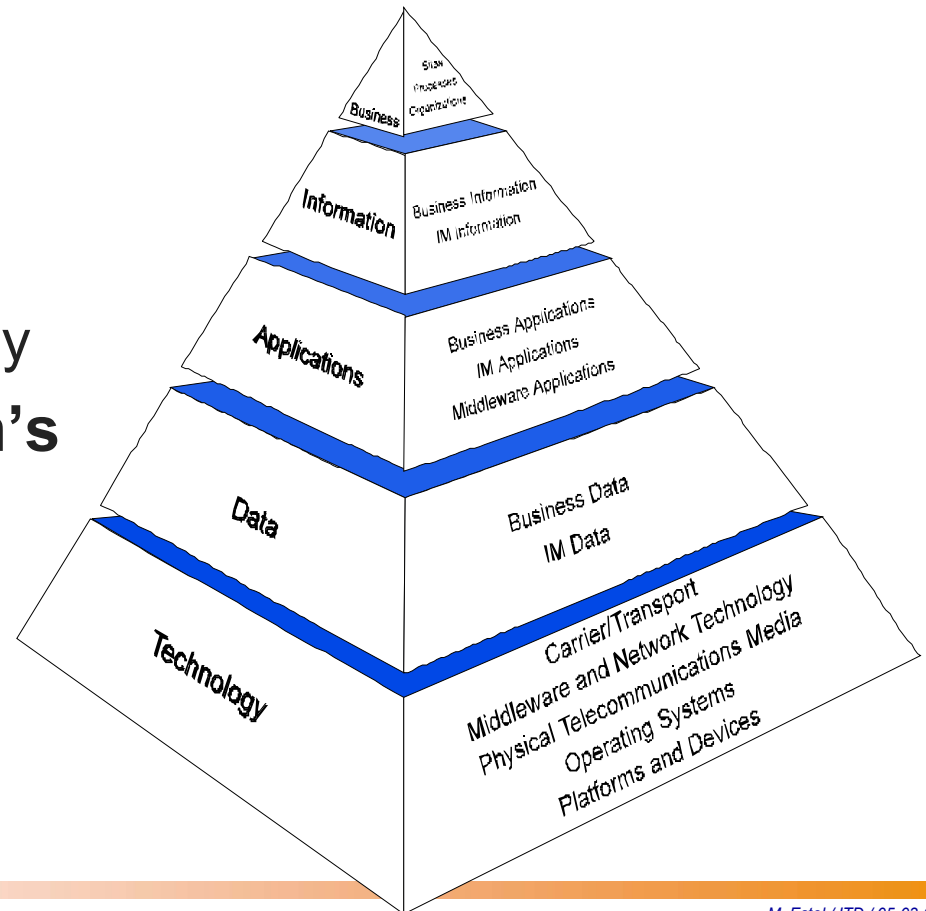


EA Leads to a Well Designed Structure



Enterprise Architecture (EA)

- Improves organizational performance through aligning
 - information
 - applications
 - data
 - information technology
- with the organization's mission and goals**



Alignment attained through:

- **Applying IT resources based upon systematic process to define business needs**
- **Holistic management of enterprise systems using a portfolio analysis approach**
- **Facilitating communication between the business requirements and the information technology organization**
- **Adhering to organization wide information policies and procedures**
- **Mapping and managing the relationship between processes and information**



What is Enterprise Architecture?

- **Systematic approach to ensuring information technology resources are applied in the most beneficial way to support NETL**
- **An approach to constructing systems that provide faster access to consistent information**
- **An approach that takes an NETL wide view of the solution**
- **An approach that eliminates the duplication and discontinuity in data and increases the return on investment made on IT implementations**



. . . and what's it impact on ITD?

- **ITD becomes a strategic business partner**
 - Psst . . . don't tell the customer, but . . .
 - They understand their process, making it easier on IT to provide support
 - They take ownership of the resulting system
- **ITD becomes the repository for business models**
- **ITD personnel are engaged using current practices and technology**



Benefits of EA Include:

- **More efficient and effective information system development**
- **Identify poorly supported information flows**
- **Identify inadequately supported key processes**
- **Information structure will be clearly based on a shared vision of organizational goals**
- **Modeling provides potential for process improvement**
- **Ability to adapt to changing business needs**



EA Organizational Objectives

- **A cohesive information infrastructure**
- **Standard definition and terms for information and data**
- **Recognize information as a valuable resource**
- **Information is available and usable**
- **Stable architecture**

ITD Support for EA

- **Enterprise Architecture Team Involvement**
- **Architecture Review Board (or equivalent)**
- **Functional Area Lead for EA**
- **CHIPS SOW change**
- **New DN Metrics**
- **E-Team (Contracted EA Support)**



What's been accomplished?

- **EA Team is up and running**
- **EA Investment Management Process being used to select ES projects**
- **Business representatives (BIOs) are engaged and have management support**
- **Domain experts are involved**
- **Pilot Modeling Effort**
 - Unsolicited Proposal Process
 - Conference Services
- **Modeling Project Management Hub of the EA**



What's been accomplished? (continued)

- **Improved communication between ITD and its customer**
- **Helped NETL customers better understand their processes**
- **Raised strategic value of ITD within NETL**
- **Compliance with Clinger-Cohen**



Where are we headed?

- **EA can evolve into a significant tool to aid in the management of NETL**
 - Complete Zachman Framework connects tactical to strategic
 - Impact of Organizational Change Understood
 - Information, Process and Goals managed
- **The E-Team is performing business modeling for many of the 2002 ES projects**
- **Anticipate business modeling for all new 2003 ES projects**
- **We're learning and maturing as we proceed**



Other Related ITD Initiatives

- **Knowledge Management**
- **ITD Architecture Review Board**
- **DOE Architecture Effort**
- **Configuration Management**
- **Rational Unified Process**
- **Rational Suite of Tools**
- **N-tiered Object Oriented Development Methodology**



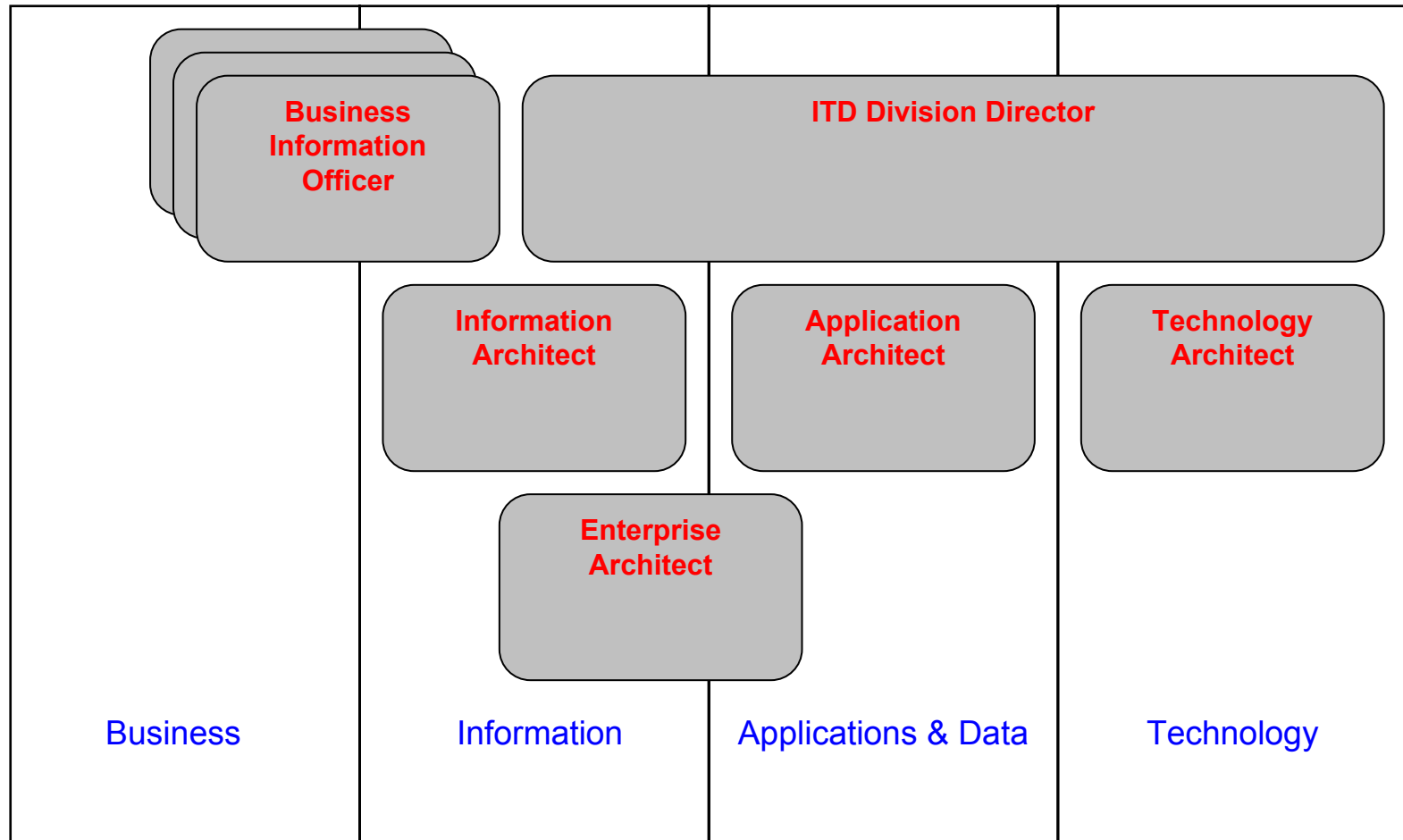
Questions / Comments?



Back-Up Slides



EA Team: Where Business and Technology Meet



EA Team

- **Permanent structure within NETL**
- **Where business drivers meet information technology advancements**
- **Responsible for**
 - Leading the NETL in the development of a consistent, integrated Enterprise Architecture
 - Ensure information and technology architectures work toward achieving organizational goals
 - Ensuring documentation of processes and information
 - Resolving information and process conflicts and overlaps
 - Applying the EA Investment Management Process



Roles and Responsibilities

- **The Business Information Officers (BIOs)**

- Representatives from throughout the organization
- In total they represent all processes and information at NETL

- **Domain Experts**

- The NETL worker who is experienced in the business area being supported

- **Business Analyst**

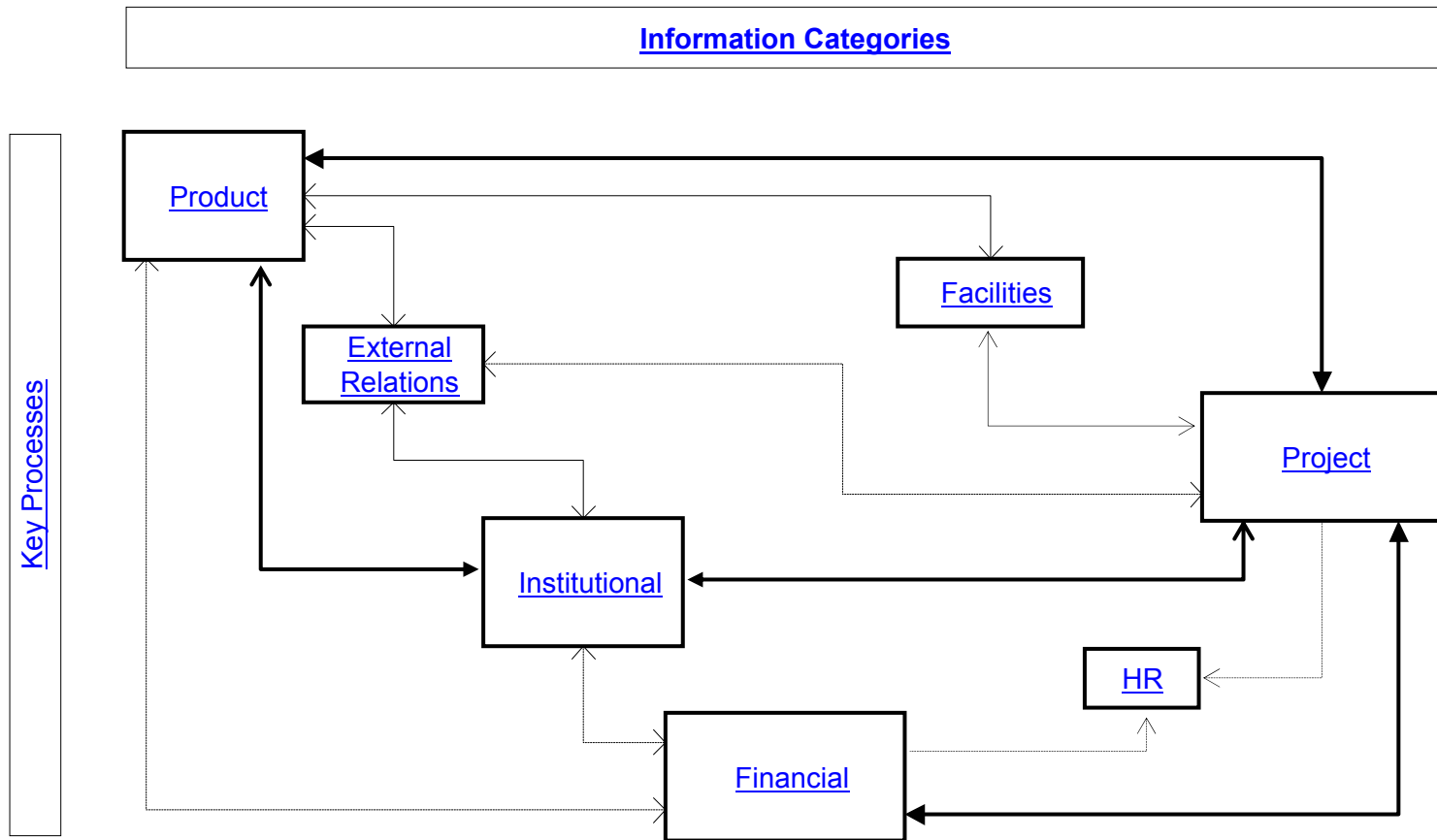
- The ITD representative who helps capture the business requirement through modeling and documentation

- **Project Workgroup**

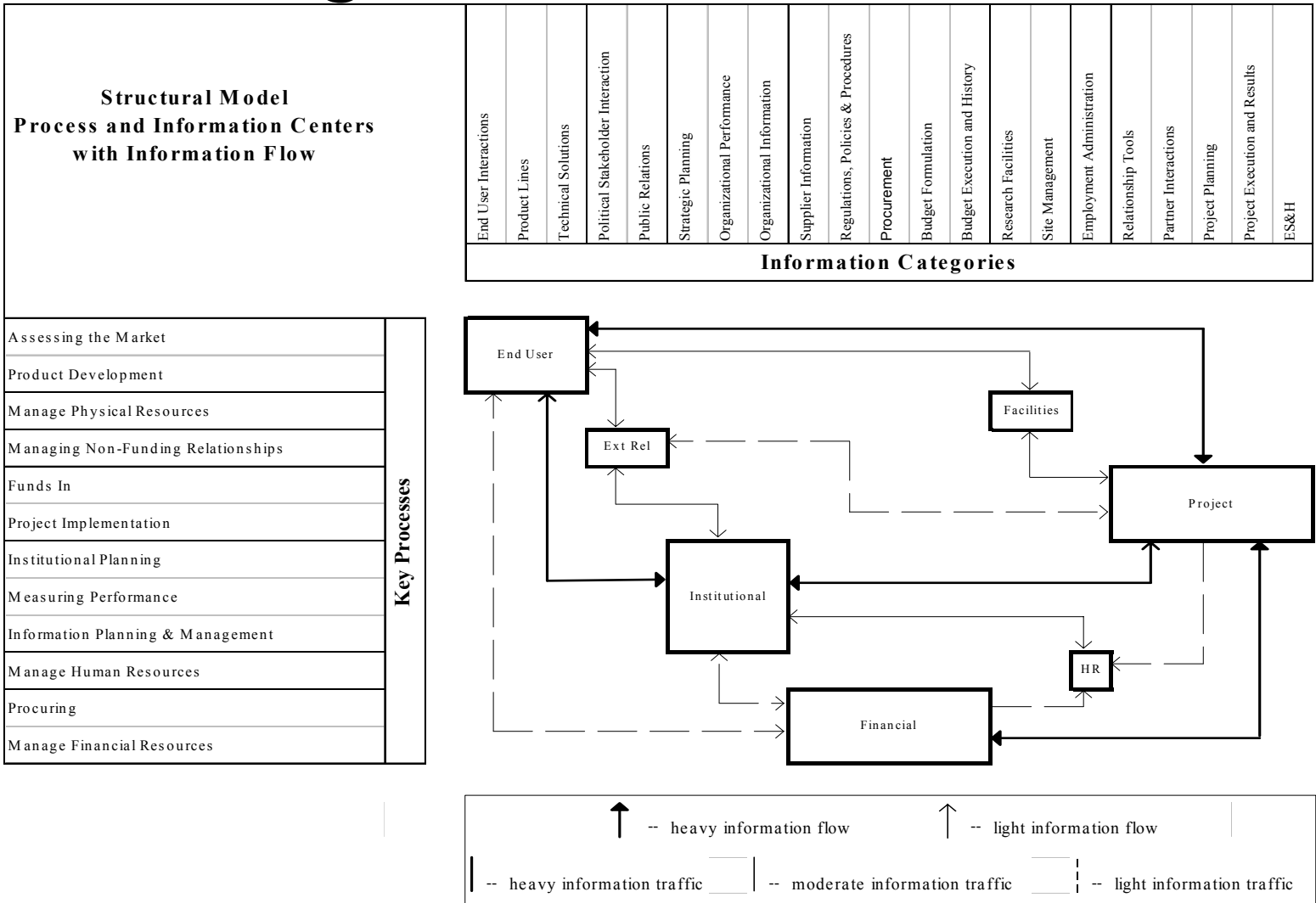
- BIO and Domain Experts working together with ITD representatives
- Focused on one defined project



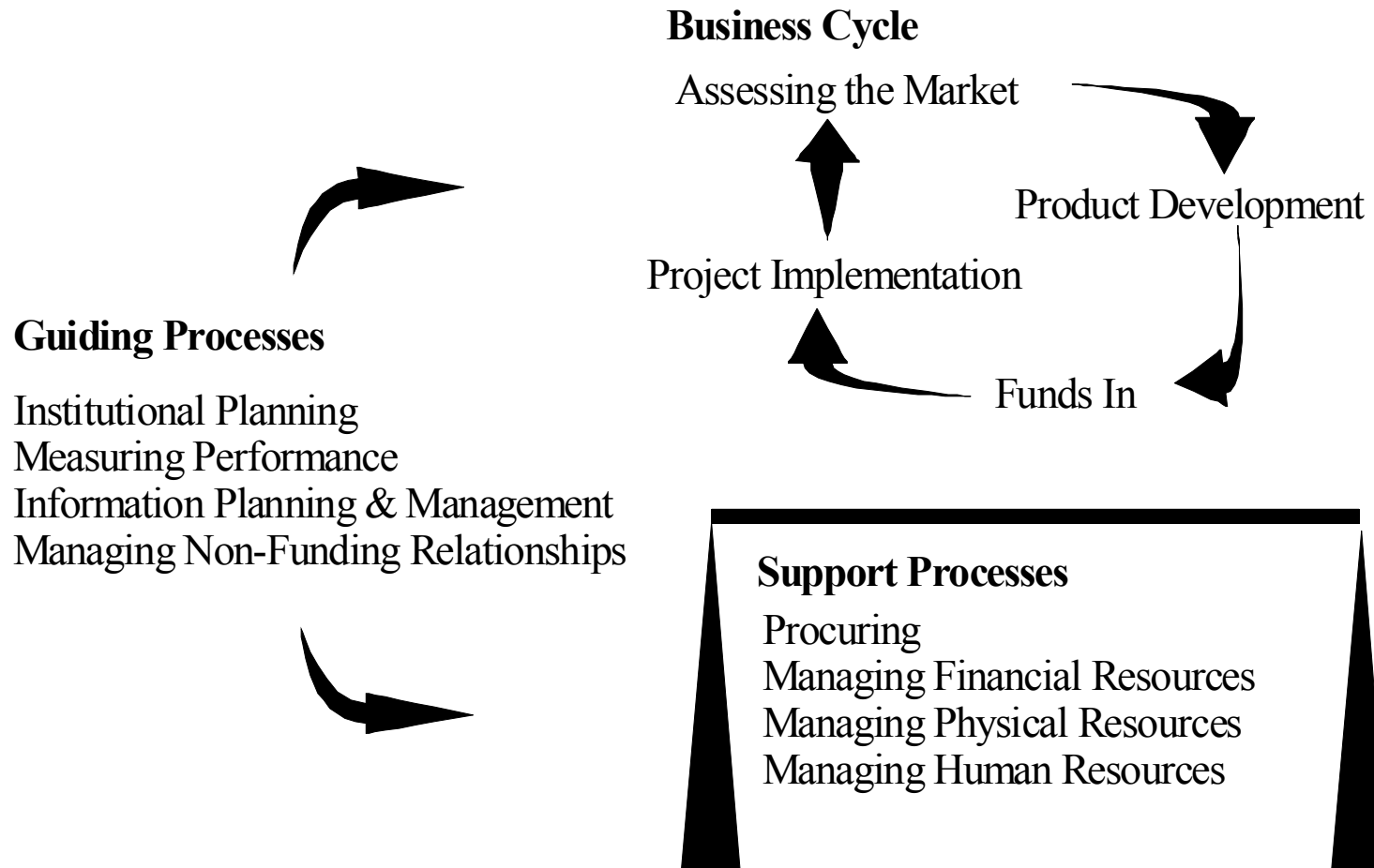
Strategic Structural Model



Strategic IA Structural Model

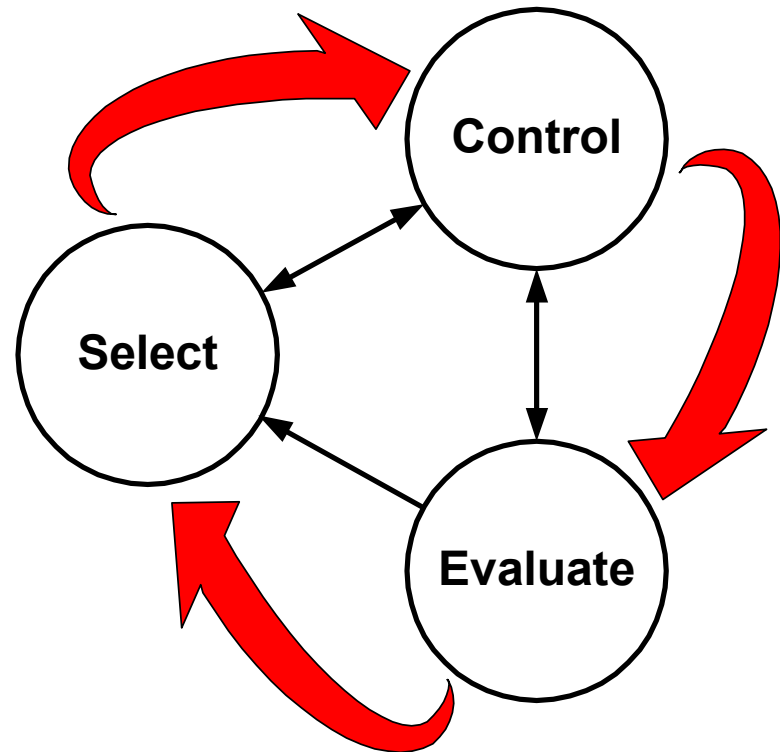


NETL Business Model

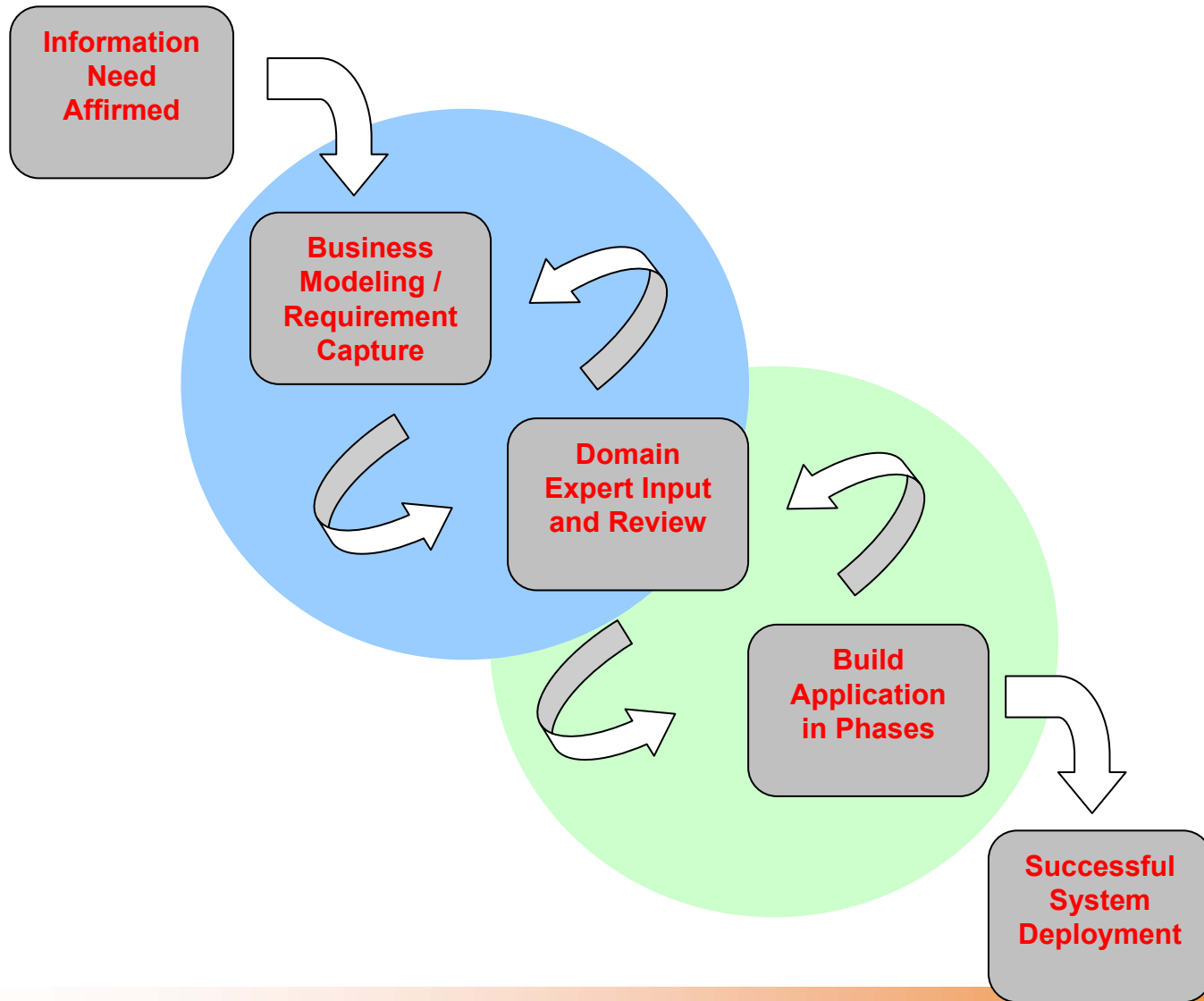


EA Investment Management Process

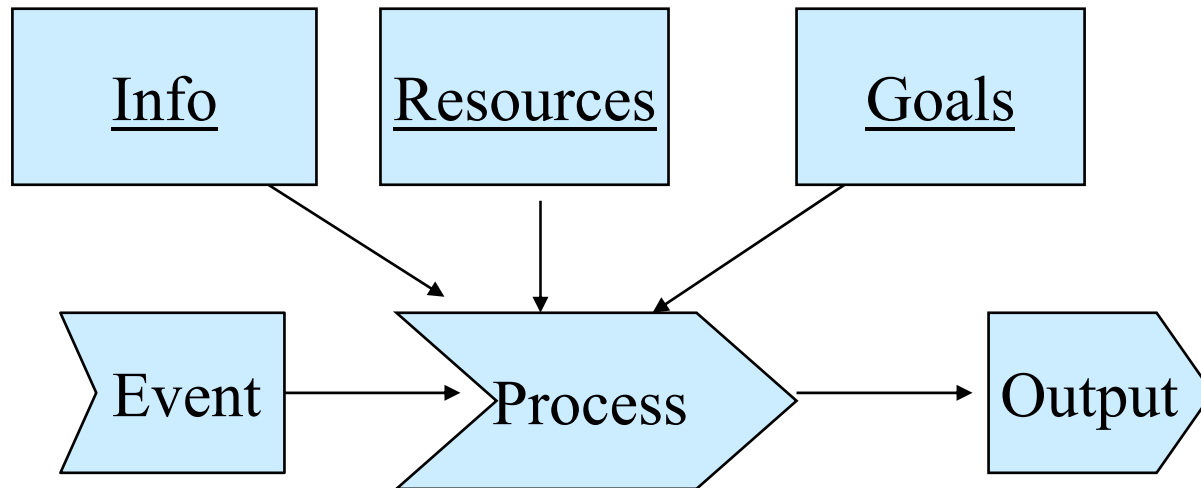
- Provides life-cycle management
- Maximizes the ROI
- Conforms to legislative requirements



Application Development Process



Activity Diagram



Once Upon a Time, A Long Time Ago . . .

- **“Information Architecture” team at Morgantown in 1996**
- **MCD initiated the Information Architecture Planning Team and the Information Transition to Implementation Team**
- **IAPT began June 1, 1997**
- **IATI finished August 31, 1999**
- **Standing EA Team started August 2000**
- **ITD resources to support EA increased**



IAPT & IATI Team Deliverables

- **EA Team Structure**
- **EA Investment Management Process**
- **EA Systems Development Methodology**
- **Vision, Policies & Objectives**
- **NETL's 12 Key Processes**
- **NETL's 21 Information Categories**
- **NETL's Business Model**
- **Strategic Structural Model**
 - Defines the 7 Enterprise Hubs



Information Vision

- **Shared information is the foundation of NETL's activities**
- **Needed information is readily accessible in a usable format, meaningful to the user**
- **Individuals recognize information as a organization-wide resource**
- **We share and communicate information in a way that supports effective decision making at all levels of the organization**



Covey's Time-Management Matrix

		Urgent	Not Urgent
Important	Important	I <ul style="list-style-type: none"> •Crises •Pressing problems •Deadline-driven projects, meetings, preparations 	II <ul style="list-style-type: none"> •Preparation •Prevention •Values clarification •Planning •Relationship building
	Not Important	III <ul style="list-style-type: none"> •Interruptions •Some mail, calls, reports & meetings •Many proximate, pressing matters •Many popular activities 	IV <ul style="list-style-type: none"> •Trivia, busywork •Some calls •Time wasters •Escape activities •Irrelevant mail •Excessive TV



Other Benefits Are:

- Improved decision making by all employees
- Access to information in a useful format when and where needed
- Eliminate information redundancies
- Accurate and consistent information
- Better information sharing inside & outside the organization
- Improved communication
- Accountability will be improved allowing for organizational progress and measurement of results
- More responsive to Stakeholder needs
 - Reduced overhead cost
 - Improves likelihood of Center's success
 - Eliminate data/information redundancies
 - Improved productivity
 - Leads to process improvement

